Appl. No. : **10/031,913**
Filed : **May 21, 2002**

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth in the following listing of claims, which replaces all prior versions and listing of claims.

1-17. (Canceled)

18. (Currently Amended) A catheter for the uniform delivery of fluid throughout an anatomical region, comprising:

an elongated support constructed from a first material; and

a porous membrane wrapped around said support, wherein said membrane is a separate member from said support and is constructed from a second material that is different from said first material;

said support being configured so that at least one lumen is formed between said support and said membrane, wherein a proximal end of said at least one lumen is open such that fluid introduced into a proximal end of said catheter enters said at least one lumen, flows toward a distal end of said catheter and exits said catheter through said porous membrane at a rate determined by a rate of diffusion of said fluid through said porous membrane.

19. (Original) The catheter of Claim 18, wherein said porous membrane is configured so that a fluid flowing within said lumen will pass through a portion of said membrane at a substantially uniform rate throughout the surface area of said portion of said membrane.

20. (Original) The catheter of Claim 18, wherein the surface of said support includes interruptions such that when said porous membrane is wrapped around said support, said membrane forms a portion of the wall of said lumen.

21. (Original) The catheter of Claim 20, wherein said interruptions comprise a plurality of ribs extending radially from an axial center portion of said support, said ribs also extending longitudinally along a length of said support, said porous membrane wrapped around the outer edges of said ribs.

22. (Original) The catheter of Claim 18, further comprising a non-porous membrane wrapped around a portion of said support proximal to the portion of said support around which said porous membrane is wrapped, said non-porous membrane forming a portion of the wall of said lumen.

23. (Original) The catheter of Claim 18, wherein a first of said lumens is separated from a second of said lumens, so that a first fluid flowing within said first lumen and a second fluid flowing within said second lumen will remain separated for as long as said first and second fluids remain within said catheter.

24. (Original) The catheter of Claim 23, wherein each of said lumens is separated so that a first fluid flowing within any of said lumens and a second fluid flowing within any other of said lumens will remain separated for as long as said first and second fluids remain within said catheter.

25. (Original) The catheter of Claim 18, wherein said support and porous membrane are substantially flexible.

26. (Original) The catheter of Claim 21, wherein said axial center portion contains an axial guide wire lumen adapted to slidably receive a guide wire.

27. (Original) The catheter of Claim 21, wherein said porous membrane is secured to the outer edges of said ribs.

28. (Original) The catheter of Claim 18, wherein the average pore diameter of said porous membrane is less than 0.23 microns.

29-72. (Canceled)

73. (Currently Amended) A catheter for the uniform delivery of fluid throughout an anatomical region, comprising:

an elongated support; and

a porous membrane wrapped around said support, wherein said membrane is a separate member from said support;

wherein said support comprises at least three ribs extending radially from an axial center portion of said support, said ribs also extending longitudinally along a length of said support, said porous membrane wrapped around the outer edges of said ribs so that at least three lumens are formed between said support and said membrane, wherein a proximal end of said at least three lumens are open such that fluid introduced into a proximal end of said catheter is divided among said at least three lumens, flows toward a distal end of said catheter and exits said catheter through said porous membrane at a rate determined by a rate of diffusion of said fluid through said porous membrane.

74. (Previously Presented) The catheter of Claim 73, wherein said porous membrane is configured so that a fluid flowing within said at least three lumens will pass through a portion of said membrane at a substantially uniform rate throughout the surface area of said portion of said membrane.

75. (Previously Presented) The catheter of Claim 73, further comprising a non-porous membrane wrapped around a portion of said support proximal to the portion of said support around which said porous membrane is wrapped, said non-porous membrane forming a portion of the wall of said lumen.

76. (Previously Presented) The catheter of Claim 73, wherein a first of said lumens is separated from a second of said lumens, so that a first fluid flowing within said first lumen and a second fluid flowing within said second lumen will remain separated for as long as said first and second fluids remain within said catheter.

77. (Previously Presented) The catheter of Claim 76, wherein each of said lumens is separated so that a first fluid flowing within any of said lumens and a second fluid flowing within any other of said lumens will remain separated for as long as said first and second fluids remain within said catheter.

78. (Previously Presented) The catheter of Claim 73, wherein said support and porous membrane are substantially flexible.

79. (Previously Presented) The catheter of Claim 73, wherein said axial center portion contains an axial guide wire lumen adapted to slidably receive a guide wire.

80. (Previously Presented) The catheter of Claim 73, wherein said porous membrane is secured to the outer edges of said ribs.

81. (Previously Presented) The catheter of Claim 73, wherein the average pore diameter of said porous membrane is less than 0.23 microns.